

## REMARKS

Applicants amended claims 40, 44, 69, 73, and 74. The changes to those claims are shown in the attached Appendix. The amendments add no new matter. Claims 40-44 and 69-74 are now pending.

Claim 44 has been amended to further clarify that it is a multiple dependent claim. Claim 44 was also amended to clarify that the method further comprises at least one of the three recited processes. The amendments to claim 44 in no way narrow the claim and are not made for any patentability purpose.

### Objection Under 37 CFR §1.75


The Examiner objected to claims 40-44 and 69-74 under 37 CFR §1.75(c), as allegedly being in improper form. See Office Action dated April 25, 2001, page 2, section 1. The Examiner noted that certain claims depended from cancelled claims. *Id.*

Claims 40, 69, 73, and 74 have been amended to remove the dependencies to cancelled claims. Those amendments do not narrow those claims since they simply insert language from the cancelled claims from which they had depended.

Thus, the objection is moot. Applicants request reconsideration and withdrawal of the objection. Applicants respectfully request reexamination and the timely allowance of the application.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,  
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## APPENDIX

40. (Amended) A method of enhancing a nucleic acid polymerase reaction comprising, in any appropriate order:

(a) mixing a nucleic acid sequence template for a nucleic acid polymerase with at least one nucleic acid polymerase; and

(b) adding to (a) a polymerase enhancing composition comprising at least one component possessing nucleic acid polymerase enhancing activity selected from:

an isolated or purified naturally occurring protein, possessing polymerase enhancing activity, obtained from a bacterial, eukaryotic, or archeabacterial source;

a wholly or partially synthetic protein having the same amino acid sequence as the naturally occurring protein or analogs thereof, possessing polymerase enhancing activity;

polymerase-enhancing mixtures of one or more of the naturally occurring proteins, or wholly or partially synthetic proteins;

polymerase-enhancing protein complexes of one or more of the naturally occurring proteins, or wholly or partially synthetic proteins; and

polymerase-enhancing partially purified cell extracts containing one or more of the naturally occurring proteins [according to claim 1].

44. (Amended) A method of any one of [according to] claims 41, 42, or 43, further comprising at least one of:

a site-directed mutagenesis process,

a cycle sequencing process, and [or]

a cloning process.

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69. (Amended) A method of enhancing a nucleic acid polymerase reaction comprising adding a P45 protein [as claimed in claim 59] to a polymerization reaction, wherein the P45 protein is in monomeric, dimeric, or multimeric form, and wherein the P45 protein is produced from a cell containing a DNA construct comprising a sequence encoding PEF protein P45 operably linked to an expression vector.

73. (Amended) A method [as claimed in] according to claim 71, wherein the dUTPase activity comprises one or more of [a P45 protein as claimed in claim 59,] a human dUTPase, a bacterial dUTPase, an archael dUTPase, a yeast dUTPase, a mammalian dUTPase, [or] an animal dUTPase, or a P45 protein, wherein the P45 protein is in monomeric, dimeric, or multimeric form, and wherein the P45 protein is produced from a cell containing a DNA construct comprising a sequence encoding PEF protein P45 operably linked to an expression vector.

74. (Amended) A method [as claimed in] according to claim 72, wherein the PEF activity comprises a P45 protein [as claimed in claim 59], wherein the P45 protein is in monomeric, dimeric, or multimeric form, and wherein the P45 protein is produced from a cell containing a DNA construct comprising a sequence encoding PEF protein P45 operably linked to an expression vector.